

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S2	1	(10/584642).APP.	US-PGPUB; USPAT; USOOR	OR	OFF	2011/02/22 22:02
S3	6	("20020064598" "20030124798" "20040235191" "5420072" "5895267" "6207557").PN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/22 22:55
S4	22	("5279857" "5308655" "5514908" "5552340" "5573978" "5591672" "5654235" "5665640" "5705442" "5975912" "5994181" "6005291" "6028360" "6140223").PN. OR (("6207557").URPN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/22 23:44
S5	1	("6548402").PN.	US-PGPUB; USPAT; USOOR	OR	OFF	2011/02/23 00:35
S6	15	("4535000" "4897709" "5378501" "5416045" "5420072" "5462895" "5593511" "5610106" "5840628" "5866213").PN. OR (("6548402").URPN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/23 00:36
S8	11	("5246881" "5508066" "5545574" "5567243").PN. OR (("5840628").URPN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 02:09
S9	27	partial W/TH pressure W/TH (titanium tetrachloride OR "TiCl. sub.4") W/TH (ammonia OR "NH. sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 10:16

S10	36	partial WITH pressure WITH (titanium tetrachloride OR "TiCl. sub.4") SAME (ammonia OR "NH. sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 11:20
S11	9	S10 not S9	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 11:21
S12	31	partial WITH pressure WITH (titanium tetrachloride OR "TiCl. sub.4") AND partial WITH pressure WITH (ammonia OR "NH. sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 11:37
S13	4	S12 not S9	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 11:37
S14	17	ratio WITH pressure WITH (titanium tetrachloride OR "TiCl. sub.4") WITH (ammonia OR "NH. sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 11:38
S15	3425	reaction WITH limited AND (titanium tetrachloride OR "ticl. sub.4")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 23:58
S16	609	supply and limited AND reaction WITH limited AND (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 23:59
S17	57	supply and limited AND reaction WITH limited SAME (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/24 23:59
S18	30	supply near limited AND reaction WITH limited AND (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 00:04

S19	1080	CVD AND ALD AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 00:09
S20	77	first WITH (titanium nitride OR tin) WITH CVD AND ALD AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 00:09
S21	27	first WITH (titanium nitride OR tin) WITH (low OR lower) WITH temperature AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 11:04
S22	20	second WITH (titanium nitride OR tin) WITH (high\$3 OR increas\$4) WITH temperature AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 11:09
S23	60	(subsequent\$4 OR another OR second) near5 (titanium nitride OR tin) SAME (high\$3 OR increas\$4) WITH temperature AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 11:13
S24	10	flow near3 rate near3 ratio SAME (titanium tetrachloride OR "tcl.sub.4") SAME (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 12:01
S25	158	flow near3 rate near3 ratio AND (titanium tetrachloride OR "tcl.sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 12:08

S26	9	second near3 flow near3 rate near3 ratio AND (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 12:08
S27	22	("5279857" "5308655" "5514908" "5552340" "5573978" "5591672" "5654235" "5665640" "5705442" "5975912" "5994181" "6005291" "6028360" "6140223").PN. OR ("6207557").URPN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 12:13
S28	15	("4535000" "4897709" "5378501" "5416045" "5420072" "5462895" "5593511" "5610106" "5840628" "5866213").PN. OR ("6548402").URPN.	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 14:19
S29	65	second WITH sccm WITH (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 14:29
S30	36	second WITH (titanium nitride OR "TiN") SAME sccm WITH (titanium tetrachloride OR "ticl. sub.4") AND (ammonia OR "NH.sub.3")	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 14:48
S31	0	S29 AND (fast\$4 WITH rate)	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 14:54
S32	0	S29 AND (quick\$4 WITH rate)	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 14:55
S33	54	S29 and rate WITH sccm	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 15:00
S34	37	S29 AND (deposition WITH rate)	US-PGPUB; USPAT; USOOR	ADJ	ON	2011/02/25 15:01

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S35	7	(seishi near2 murakami.in. OR tada near2 kunihiro.in.) and (method OR process).clm. and (titanium tetrachloride OR "ticl.sub.4").clm. AND (ammonia OR "NH.sub.3").clm.	US-PGPUB; USPAT; UPAD	ADJ	ON	2011/02/25 15:22
S36	4	(tokyo near4 limited.as.) and (method OR process).clm. and (titanium tetrachloride OR "ticl.sub.4").clm. AND (ammonia OR "NH.sub.3").clm. and ratio.clm.	US-PGPUB; USPAT; UPAD	ADJ	ON	2011/02/25 15:41

2/25/2011 5:01:33 PM

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\Murakami_10584642_titanium_nitride_film_ratio_ticl4_nh3.wsp